

## Projekta Izp-2018/1-0020 rezultāti

### Sārmu metālu divatomu molekulu struktūras un dinamisko īpašību noteikšana kvantu tehnoloģijām

*Origināli zinātniskie raksti, kas publicēti zinātniskos žurnālos, rakstu krājumos vai konferenču rakstu krājumos, kuri ir indeksēti datu bāzēs Web of Science Core Collection, SCOPUS vai ERIH PLUS*

1. Klincare, I.; Tamanis, M.; Ferber, R.; Pazyuk, E. A.; Stolyarov, A. V.; Havalyova, I.; Pashov, A. Intensities of KCs  $E(4)1\Sigma^+ \rightarrow (a3\Sigma^+, X1\Sigma^+)$  band system up to dissociation threshold: an interplay between spin-orbit, hyperfine and rovibronic coupling effects. - J. Quant. Spectrosc. Radiat. Transf., 2022, <https://doi.org/10.1016/j.jqsrt.2022.108351>
2. Kruzins, A.; Krumins, V.; Tamanis, M.; Ferber, R.; Oleynichenko, A. V.; Zaitsevskii, A.; Pazyuk, E. A.; Stolyarov, A. V. Fourier-transform spectroscopy and relativistic electronic structure calculation on the  $c3\Sigma^+$  state of KCs. - J. Quant. Spectrosc. Radiat. Transf., 2021, <https://doi.org/10.1016/j.jqsrt.2021.107902>
3. Znotins, A.; Kruzins, A.; Tamanis, M.; Ferber, R.; Pazyuk, E. A.; Stolyarov, A. V.; Zaitsevskii, A. Fourier-transform spectroscopy, relativistic electronic structure calculation, and coupled-channel deperturbation analysis of the fully mixed  $A\ 1\ \text{}\sigma^+$  and  $b\ 3\ \text{}\Pi$  states of Cs<sub>2</sub>. - Phys. Rev. A, 2019, <https://doi.org/10.1103/PhysRevA.100.042507>
4. Krumins, V.; Kruzins, A.; Tamanis, M.; Ferber, R.; Pashov, A.; Oleynichenko, A.V.; Zaitsevski, A.; Pazyuk, E.A.; Stolyarov, A.V. The branching ratio of intercombination  $A\ 1\ \text{}\Sigma^+ \sim b\ 3\ \text{}\Pi$  to  $a\ 3\ \text{}\Sigma^+ / X\ 1\ \text{}\Sigma^+$  transitions in the RbCs molecule: Measurements and calculations, - Journal of Quantitative Spectroscopy and Radiative Transfer., 2020, <https://doi.org/10.1016/j.jqsrt.2020.107291>
5. Klincare, I.; Kruzins, A.; Tamanis, M.; Ferber, R.; Pazyuk, E. A. Fourier-transform spectroscopy, direct potential fit, and electronic structure calculations on the entirely perturbed  $(4)\ 1\Pi$  state of RbCs, - Physivcal Review A, 2018, <https://doi.org/10.1103/PhysRevA.98.062517>



**FLPP**

FUNDAMENTĀLO UN  
LIETIŠĀO PĒTĪJUMU  
PROJEKTI